

CLAIMS

What is claimed is:

1. A cross beam assembly extending between side frame members of a
5 vehicle, said cross beam assembly comprising:
a beam having a hollow interior, said beam defining an opening formed
therein; and
an air bag inflator assembly including a source of pressurized gas for
inflating an air bag, said inflator assembly disposed within the hollow interior of
10 said beam, such that activation of said inflator assembly expels gas through said
opening.
2. The assembly of claim 1, wherein said beam has a generally constant
cross-sectional area along substantially the entire length of the beam.
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3. The assembly of claim 2, wherein said beam includes a strengthening
member attached thereto, said strengthening member attached adjacent to said
inflator assembly.
- 20 4. The assembly of claim 1, wherein said beam includes a strengthening
member attached thereto, said strengthening member attached adjacent to said
inflator for providing added strength to said beam.
5. The assembly of claim 1 further including an inflatable air bag.
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6. The assembly of claim 5, wherein said air bag is disposed outside of
said hollow interior of said beam.

7. The assembly of claim 1, wherein said inflator includes a separate canister housing mounted within said hollow interior of said beam, said canister housing including apertures formed therein for permitting gases to be expelled therethrough upon actuation of said inflator.

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8. The assembly of claim 1, wherein said inflator assembly is integrally formed in said cross beam such that a portion of the cross beam defines walls of said inflator assembly containing the propellant.

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9. The assembly of claim 8, wherein said cross beam includes a pair of walls disposed in said hollow interior of said to beam, and wherein said walls and said hollow interior of said cross beam define a chamber for housing said propellant.

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10. The assembly of claim 9, wherein one of said walls is attached to said cross beam by a crimp formed in said cross beam.

11. The assembly of claim 9, wherein one of said walls is attached to said cross beam by a weld.

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12. The assembly of claim 1 further including a chute defining a passageway in communication with said opening formed in said cross beam, said chute extending outwardly from said cross beam for directing expelled gas from said source of pressurized gas to an inflatable air bag upon actuation of said inflator assembly.

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13. The assembly of claim 12, wherein said chute is attached to said cross beam.

14. The assembly of claim 13, wherein said chute partially surrounds said cross beam.

5 15. The assembly of claim 12 further including an inflatable air bag disposed in said chute.

16. The assembly of claim 15, wherein the majority of said air bag is in a folded condition which is spaced from said cross beam by said chute.

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17. The assembly of claim 12 further including an inflatable air bag and a door for covering said air bag in a non-deployed state, said door movable to deployed position upon actuation of said inflator to inflate said air bag, wherein said door is attached to said chute.

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18. The assembly of claim 17, wherein said door is integrally formed with said chute.

19. The assembly of claim 1, wherein said source of pressurized gas is a solid propellant.

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20. The assembly of claim 1, wherein said inflator assembly includes compressed gas.